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AN

ESSAY

ON THE

MANAGEMENT OF HOGS;

INCLUDING

EXPERIMENTS

ON

REARING AND FATTENING THEM;

by Arthur Young

FOR WHICH

The SOCIETY for the Incouragement of ARTS,
MANUFACTURES, and COMMERCE, adjudged
the PREMIUM of a
GOLD MEDAL.

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Part of a Reſolution of the Society for the Encouragement of Arts, Manufactures, and Commerce.

——"THAT Mr. *Young* be deſired "to publiſh his Account of rearing "and fattening Hogs, with ſuch Additions and Remarks as he ſhall "think proper."——

PREFACE.

IT was my conſtant cuſtom, during five years that I farmed in *Suffolk*, (and has been ſo ſince) to regiſter, in a regular manner, all the experiments I made;—and, from the attention I gave to ſuch matters, every common crop I raiſed became experimental; and all the ordinary management of the buſineſs I found as ſuſceptible of minute calculation, as the trials I purpoſely made. This attentive method of conducting a farm, which can only be executed by a perſon who lives in what may be called abſolute obſcurity, enabled me to regiſter near two thouſand original experiments, upon a vaſt variety of ſubjects.

Among others, Hogs demanded particular attention; and will, in all farms properly conducted, form a principal branch of rural œconomy. I made numerous trials on feeding and fattening them, and with many articles of food not commonly uſed.

The Society for the encouragement of arts, manufactures, and commerce, offered a premium of twenty pounds, or a gold medal, for the beſt account of rearing and fattening them. In conſequence of that offer, I ſent them a ſeries of trials, as a candidate for their medal, and have been honoured with it.

The account I ſent was incorrectly and ſurreptitiouſly publiſhed, which renders a perfect edition of it highly neceſſary; not only to my own reputation, but in defence of their adjudication of the premium. It is now, by their deſire, preſented to the public, with the addition of ſuch general obſervations as are neceſſary to elucidate the experiments.

Theſe trials are few, in compariſon to the number I made and regiſtered; but a certain brevity, I apprehend, is requiſite in eſſays that are to be read at a public meeting: this induced me to lay before the Society but a part of what I tried, a circumſtance that ſhould apologize for the many imperfections to be found in this ſketch.

OF THE

MANAGEMENT

OF

HOGS.

THE importance of this animal to the farmer is not ſufficiently known in every part of *England*; there are many dairies that do not maintain one tenth of the ſwine they might, with proper management.—

Several garden roots are raiſed in large quantities, without being applied to feeding hogs;—and clover is cultivated, in many counties, upon the largeſt ſcale, without its utility for the ſame uſe being the leaſt known. No perſon, who has tried many experiments in this part of rural œconomics, can fail regretting that ſo many farmers ſhould neglect a conduct that adds ſo much to the good of the public, as well as to their own profit.

There are two principal objects in the rearing and fattening hogs; *firſt*, to make the greateſt advantage of a dairy; and, *ſecondly*, to ſubſtitute ſome other food in the place of that which ariſes from cows, when none are kept.

It is the practice of ſeveral counties to uſe the ſkim-milk, butter-milk, and cheeſe-whey, in *fattening* hogs. This is a moſt pernicious cuſtom: that food, for ſuch a uſe, it is every where known, has twenty ſubſtitutes *viz.* peaſe, beans, buck-wheat, barley, *&c. &c. &c.*; but it is not ſo generally known, that pigs may be *reared* without cows. It is agreed, that the dairy food is excellent for the latter purpoſe.

For this reaſon, I ſhall venture to propoſe a different conduct, and with the greater readineſs, as I have found it, by experience, to be more profitable than the common management. The dairy, upon this improved ſyſtem, ſhould be applied only to rearing pigs, and feeding ſows which have young. But this, at once, opens a larger proſpect of the whole management of a farm.

The ſows and weaned pigs ſhould evidently be proportioned, in ſuch a manner, to the number of cows in milk, as to conſume all the dairy food without waſte. And other ſorts of food provided for the keeping ſows that have no pigs—hogs half—three-fourths—full grown—and fattening ones.

The practice of ſome counties, as well as the annexed experiments, prove that clover is a moſt capital object in *keeping* all theſe ſorts of ſwine; but thoſe writers, who aſſert that it will completely fatten them, go much too far. There is no ſort of cattle in a farm that require more attention than hogs; any method, therefore, that ſimplifies the management, muſt be peculiarly valuable.

Hogs that are a quarter (or upwards) grown, may be abſolutely confined to a clover field, until it is neceſſary to ſow wheat: nine tenths of *Britain* will doubt this fact, but I have repeatedly experienced the truth of it. The fences, it is unneceſſary to add, muſt, in this ſyſtem, be incomparably good;—which neceſſity, I apprehend, is a particular merit in a mode of huſbandry; for a conduct that forces the farmer to have excellent fences, is, ſo far, of great utility. It is alſo requiſite to add, that there muſt be a pond in the field, which never fails. In a good crop of clover, well fenced and watered, ſwine of this ſort may be locked up from the middle of *May* to *Michaelmas*; and no conſumption of the clover will pay the farmer better: I could add many experiments to prove this aſſertion; but a certain brevity is requiſite, in ſuch ſlight eſſays as theſe.

I have found lucerne to be equal, and in ſome years ſuperior to clover, for this uſe.—Sainfoine is alſo of excellent utility; but ray-graſs and burnet, will not by any means do. Natural paſtures, with waſh, are a good ſubſtitute; but never will be found to equal the artificial graſſes.

But in making the greateſt advantage of a dairy, we muſt not confine ourſelves to the ſummer-keeping alone; proviſion muſt be made for winter-feeding ſuch hogs as do not require aſſiſtance from the dairy.

The following experiments will prove, that carrots, parſnips, beets, and potatoes, are of admirable uſe in feeding pigs that have been reared;—they will keep the hogs that are taken out of the clover in excellent order, and even fatten them—and maintain, to vaſt advantage, ſows that have no pigs.

By this general ſyſtem of management it appears, that hogs are to be maintained the year through upon clover and theſe roots—and recourſe had to the dairy only for aſſiſtance in feeding ſows that have pigs, and in rearing their young.

It muſt be extremely evident, that, with this conduct, the number of ſwine maintained on a dairy farm may be prodigious—the number of cows point out the number of ſows and pigs; and theſe again muſt proportion the number of acres applied to the production of clover and roots. Thus the whole chain of crops is connected, and each field the ſupport of the other.

The *ſecond* object, in the management of ſwine, is the ſubſtituting ſome food, in the room of a dairy, for rearing pigs; upon ſuch farms as keep no cows, this is an object of very great importance, as there are numerous extenſive tracts of country that will produce clover in very great perfection,

tion, and alſo many ſorts of roots, but where it is either unprofitable to keep cows—or only advantageous to ſuckle them.

The reaſon I before gave, *viz.* keeping this ſketch in due bounds, prevents the inſertion of numerous experiments, which I formed for the particular determination of this point: I found from repeated trials, that carrots and parſnips will *wean* pigs of a proper age, almoſt as well as milk;—that is, in ſuch a degree of perfection, as to render the keeping a large number of hogs, upon that de-

pendance,

pendance, extremely adviſeable to any farmer, whoſe buſineſs or ſituation may prompt him to do it; and other experiments aſſured me, that ſows, with the moſt numerous litters, may be maintained to great profit in the ſame manner. Potatoes, and red beets, I likewiſe found of very great uſe for the ſame purpoſe.

It may not be improper here, to conſider the conſequence of enabling the farmer to keep large ſtocks of ſwine, by means of roots, ſo extremely productive as thoſe I have mentioned: there are no ſoils, but what, with proper management, will yield ſome or other of them; and the crops are immenſe.—The number of ſwine, to be fattened or fed by an acre of carrots or potatoes, would ſurpriſe thoſe who have never formed any experiments upon the point: and the excellency of the huſbandry, in general, ſhould plead powerfully with our farmers to adopt it upon this principle. Theſe roots are all *fallow crops*, that is, they are of the ſame advantage to the ſoil as a year of fallow—and, if cultivated in the manner they ought to be, much ſuperior to any fallow; for this reaſon, their culture is beneficial to the land, and a very material method of bringing it into excellent heart. Their application to feeding ſwine is, alone, ſufficient to improve a farm that is almoſt worn out, ſince it cannot be conducted without raiſing large quantities of the very beſt dung.

Now, the conſequences of adopting the culture of vegetables, that clean and ameliorate the ſoil—and in their uſe infinitely enrich it, muſt be obvious to every reader. It is no exaggeration to aſſert, that the beſt ſoils may be improved, and the pooreſt converted into good ones by this conduct;—and I can aſſert, on experiment, cheaper than by any other method. I have found, that 90 hogs will, in fatting, yield as much manure as is worth thirty pounds on the ſpot—and where ſtraw or ſtubble are to be had very cheap, to a much greater amount.

It is from theſe ſeveral conſiderations, that I apprehend the following experiments may be of real utility to thoſe who have dairies;—to thoſe who keep cows, but apply them to ſuckling;——to thoſe who have no cows, but are willing to keep ſwine: and, laſtly, to thoſe, who on any ſoils, are deſirous of improving them.

EXPERIMENTS ON REARING AND FATTENING OF HOGS.

EXPERIMENT I.

THE firſt week in March, 1765, thirty pigs, juſt weaned, were drawn from forty-three, that they might be all of a ſize; they were then diſtributed into five lots, equally divided; I do not think there was half a crown difference in the value of them; and then fed with diſtinct ſorts of meat. Each five had a ſtye to themſelves, and all were kept clean, and equally littered with ſtraw.

Lot N° 1. Was fed with pollard mixt with water.

2. With pollard, mixt with ſkim milk.

3. With boiled turnips, and pollard mixt with the turnip-liquor.

4. With boiled potatoes and water.

5. With ſkim milk.

They were kept with this food thirty days. I then turned them out of their ſtyes (none had died), and viewed them with a perſon particularly ſkilled in hogs; the reſult was,

N° 2. The beſt, pollard and ſkim milk.

5. Next beſt, ſkim milk.

1. Next, — pollard and water.

3 and 4. Equal.

It appears from hence, that pollard and milk are the beſt food; milk alone, very good. The other articles advantageous (for none of the pigs were in bad order), though not equal to the former.

EXPERIMENT II.

At the ſame time with the preceding trial, four lots of pigs, that had been weaned three months, were equally drawn from my farm-yard, five in each lot. They were confined as before, each lot to a ſtye, and cleaned at the ſame time: their food was as follows:

Nº 1. Bran mixt with ſkim milk.
2. Boiled potatoes.
3. Boiled carrots.
4. Raw carrots.

They were kept to this food thirty days; I then viewed them as before, with the ſame perſon.

N° 3. Much the beſt, boiled carrots.
1. Next, — bran and ſkim milk.
2. Next, — boiled potatoes.
4. Worſt, — raw carrots.

Boiled carrots appeared very clearly on this trial to be an admirable food for hogs of this age; *ſo good*, that I determined to make uſe of this hint in future. Boiled potatoes appear alſo a good food. Raw carrots keep them, I think, better than the farm-yard, but were not equal to the other kinds.

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EXPERIMENT III.

January 1, 1766: forty pigs, that had been weaned about a fortnight, were draughted very equally into eight lots, and confined each to a ſtye; they were cleaned out, and littered always on the ſame day, and equally. Their food was as follows:

N° 1. Raw carrots.
2. Boiled ditto.
3. Boiled potatoes.
4. Pollard mixt with ſkim milk.
5. Ditto mixt with boiled turnips.
6. Malt-duſt mixt with ſkim milk.

7. Skim milk.
8. Ditto, and half carrot water boiled.

They continued upon this food the month of January, and were then viewed; the reſult was as follows:

N° 4. The beſt, pollard and milk.
7. Next, — ſkim milk.
2. Ditto, — boiled carrots.
3. Ditto, — boiled potatoes.
5. Ditto, — pollard and boiled turnips.
8. Ditto, — ſkim milk and carrot water.
1. Ditto, — raw carrots.

6. The worſt, two dead, malt-duſt and ſkim milk.

Pollard and milk hitherto maintain the ſuperiority; boiled carrots excellent; the reſt almoſt equal, except the malt-duſt, which is evidently bad.

EXPERIMENT IV.

In the beginning of June, 1766, I confined ſixty hogs, half and three-fourths grown, in my hog-yard (a pond's mouth in it), and fed them fourteen days with clover mown freſh every day; it was given in their troughs, with racks acroſs, to prevent their ſoiling it. They fell off in their looks in about four days, and grew worſe and worſe, ſeveral dying. At the end of that time, I gave them ſome malt grains and waſh every day, for a few days longer; but the effect was no better, more dying. They were then all turned into the clover field, from whence it had been taken, and confined conſtantly to it for ſome time. Not one more died, for all throve greatly. It will not perhaps be impertinent here to add, that I never found any method of uſing clover more beneficial than thus applying it to the feeding of hogs.

EXPERIMENT V.

At the time of the preceding experiment, eight hogs, of equal ſize, were divided into two lots, and confined to two ſtyes. Four were fed fourteen days on clover mown, and the other four on lucerne mown; they were given at the ſame time, and in the ſame ſtyes. At the end of that time they were viewed attentively: both were bad, but the clover ones much the worſt, one near dying.

EXPERIMENT VI.

The month of December, 1766, twenty pigs, that had been weaned a month, were draughted into four parcels, and kept that month, ſeparately, in the following manner.

N° 1. Boiled carrots.
2. Boiled potatoes.
3. Boiled turnips.
4. Boiled cabbages.

At the end of the month they were turned out and viewed attentively. The reſult was,

Nº 1. The beſt, boiled carrots.
2. Next, — boiled potatoes.
3. and 4. Equal, all nearly dead.

Carrots continue in every trial ſuperior to all common vegetable food. I am not at all ſurpriſed at the ill ſucceſs of turnips and cabbages.

EXPERIMENT VII.

In June, 1767, I draughted from my hogs twenty that were of a perfect equality in ſize and appearance; they were even half grown; marked them into four lots, and turned

N° 1. Into my clover field.
2. ——— lucerne ditto.
3. ——— ſainfoine ditto.
4. ——— burnet ditto.

In another month they were drove up and viewed; the reſult was,

N° 2. The fineſt, lucerne.
1. Next, —— clover.
3. Next, —— ſainfoine.
4. Very indifferent, burnet.

The reſult of this experiment I think deciſive in favour of lucerne, and likewiſe in the proportionable merit of the other articles. But this muſt be farther enquired into in future experiments.

EXPERIMENT VIII.

In January, 1768, three ſows, very much alike in all reſpects, pigged, one ſeven pigs, another eight, the third ſix, in about a week. I ordered them to be fed diſtinctly.

No 1. With raw carrots.
2. With ſkim milk.
3. Common waſh of the better ſort.

In a fortnight they were viewed. The pigs of

Nº 2. Were the fatteſt, ſkim milk.
1. Next, —— raw carrots.
3. Worſt, —— common waſh.

This experiment is not deciſive, for reaſons too tedious to mention; but yet the reſult ſhould urge the attentive to vary theſe experiments, that certainty may at laſt be known.

OBSERVATIONS.

The general reſult of theſe experiments is drawn into one view in a very few words.

Milk mixt with pollard appears to be, of all food, the moſt proper for rearing of pigs.

Milk alone is good.

Boiled carrots, excellent, and fully proved to be ſufficient for any farmer to depend on, who does not keep a good dairy.

Potatoes are alſo a very good food.

Turnips, cabbages, and malt-duſt, very bad.

Of green food, that which is growing, is clearly the beſt; mown, and given in ſtyes, it is pernicious.

In the field, lucerne is ſuperior to all the reſt. Clover comes next, then ſainfoin: all theſe three are good. Burnet laſt, and bad.

Experiments on fattening of Hogs.

EXPERIMENT I.

In February, 1765, I weighed a buſhel of white boiling peaſe, the weight was ſeventy-one pounds, the price 4 *s.* A buſhel of pollard, twenty-five pounds one quarter, price 8 *d.* A buſhel of bran, fifteen pounds one quarter, price 6 *d.* Quere, which is the cheapeſt food for hogs, ſeventy-one pounds at 4 *s.* or twenty-five pounds at 8 *d.*? The peaſe are ſix times the price of the pollard, and only three times the weight.

THE TRIAL.

I drew four pigs from my herd, of equal appearance, divided them into two lots, and weighed them alive.

	S.	P.
Nº 1. weighed	6	5
2. ———	6	7
3. ———	6	3
4. ———	6	8

Lot 1. contained the hogs Nº 1 and 2, weight 12 S. 12 P.

Lot 2. contained the hogs N° 3 and 4, weight 12 S. 11 P.

The equality of theſe weights is remarkable; but, in an hundred hogs, I do not think my bailiff would miſtake two pounds in half a dozen ſtone.

Lot 1. was confined to a ſtye, and had eight buſhels of peaſe given them, weight 565 pounds, price 1 *l.* 12 *s.*

Lot 2. was confined to a ſtye, and had forty-eight buſhels of pollard given them, weight 1212 pounds, price 1 *l.* 12 *s.* Both the pollard and peaſe were given dry with water in a trough. Each lot was weighed, as ſoon as the food was done. The reſult was,

	S.	P.	S.	P.
N° 1. weighed	19	2		
2. ———	21	5		
Superiority of N° 2. is			2	3
Add 1 pound, the firſt inequality			0	1
Total ſuperiority			2	4

A ſingle experiment muſt not be ſuppoſed to decide this matter, but future ones may determine it.

EX-

EXPERIMENT II.

In January, 1766, I drew from the herd ten hogs, as equal in ſize as poſſible, and weighed them alive in five lots.

		S.	P.
N° 1.	weighed	13	4.
2.	———	12	6
3.	———	13	0
4.	———	12	11
5.	———	13	1

A nearer equality than this, in matters that can neither be added to nor diminiſhed, can ſcarcely be expected.

N° 1. was fatted with white peaſe, that weighed ſixty-ſix pounds per buſhel; the price 30 *s.* per quarter.

N° 2. with pollard, that weighed twenty-two pounds per buſhel; the price 9 *d.* per buſhel.

N° 3. with buck-wheat, that weighed forty-ſeven pounds per buſhel; the price 2 *s.* 3 *d.* per buſhel.

N° 4. with boiled potatoes, that weighed fifty-four pounds per buſhel; the price 2 *s.* per buſhel.

Nº 5. with boiled carrots, that weighed raw fifty-five pounds per buſhel; the price 1 *s.* 1 *d.* per buſhel.

I thought it beſt to fix on a given ſum, as proper to fat each hog. The people I conſulted were of opinion, that eight buſhels of white peaſe were neceſſary to fat one ſuch hog well. This I accordingly fixed on as my criterion. The account of the expence therefore ſtood thus:

	l.	*s.*	*d.*
Nº 1. Peaſe, 16 buſhels -	3	0	0
2. Pollard, 80 buſhels -	3	0	0
3. Buck-wheat, 27 buſhels	3	0	9

		l. s. d.
4. Potatoes, 28 buſhels,	2*l.* 16*s.*	
Labour and coals,	- 4	
	———	3 0 0
5. Carrots, 49 buſhels,	2 13 2	
Labour and coals,	6 10	
	———	3 0 0

Each lot was weighed as ſoon as the food was done. The reſult was as follows:

	S.	P.
Nº 1. weighed	27	6
2. ———	27	9
3. ———	29	13
4. ———	25	7
5. ———	31	0

It is evident from this experiment, that carrots boiled are ſuperior to any of the other food. I did not expect that potatoes would be ſo much inferior; but I have found from divers other trials ſince, that it is requiſite to mix the meal of ſome kind of corn with them. Pollard in this trial, as in the laſt, is ſuperior to peaſe.

In January, &c. 1766, having a large number of hogs fatting, I purchaſed various kinds of food for them, which were given them, ſome alone, and others mixt together, to diſcover which fatted them in the cheapeſt and quickeſt manner; this being, in the opinion of ſome, a fairer way of diſcovering the nature of every kind of food, than the other method.

EXPERIMENT III.

Seventy-ſix hogs, from ſeven to fourteen ſtone lean, eat in ſeven days, after nine days fatting,

	l.	*s.*	*d.*
17 quarters 5 buſhels, pollard - - -	5	17	10
1 quarter, beans - -	0	4	0
7 quarters 2 buſhels, peaſe, ground - -	10	17	6
3 quarters 5 buſhels, or 2 *l.* 7 *s.* per diem.	16	19	4

EX-

EXPERIMENT IV.

Eighty-eight hogs eat in twelve hours,

Q.	B.		l.	s.	d.
1	6	buck-wheat	1	11	6
0	2	peaſe-meal	0	8	0
1	3	bran	0	5	6
3	3		2	5	0

EXPERIMENT V.

The ſame hogs eat next day,	l.	s.	d.
2 qrs. of white peaſe,	3	0	0

EXPERIMENT VI.

The next day,	*l.*	*s.*	*d.*
1 quarter of peaſe - -	1	10	0
2 buſhels of buck-wheat	0	4	6
- - -	1	14	6

From this day's quantity, I ſhould think they either did not like the buck-wheat ſo well as the peaſe, or the buck-wheat is a much more filling food; but two quarters of peaſe were the greateſt quantity of that grain they eat in one day, during the whole fatting.

EXPERIMENT VII.

The next day they eat	*l.*	*s.*	*d.*
2 quarters of buck-wheat	1	16	0

This day's fatting is in ſome meaſure a proof that buck-wheat is an agreeable food to them, ſince they eat as large a quantity as of peaſe; but they ought to have as much more of it, if the proportion lies in the weight and price.

EX-

EXPERIMENT VIII.

	l.	s.	d.
The next day they eat 2 quarters and a half of peaſe meal, buckwheat flour, and pollard mixed, the proportion 13*s.* 4*d.* per quarter - - -	1	13	4

EXPERIMENT IX.

	l.	s.	d.
The next ſeven days they eat 22 quarters and a half of the above mixture, at 13*s.* 4*d.* per quarter	15	0	0
Carry over	15	0	0

	l.	s.	d.
Brought over	15	0	0
1 quarter and a half of buck-wheat - -	0	18	0
7 buſhels of peaſe -	1	7	0
3 quarters and a half is 2 *l.* 9 *s.* per day	17	5	0

The quantity the hogs eat of this mixture, and their thriving extremely well with it, is a ſtrong proof that the different qualities of the ſeveral grains being finely incorporated in the mixture of their flour, contributed much to the forwarding of their fatting;

and the proportions ſhew that they eat more than when fed with one only.

EXPERIMENT X.

The next day they eat	l.	s.	d.
1 quarter of buck-wheat	0	18	0
7 buſhels of peaſe - -	1	7	0
	2	5	0

EXPERIMENT XI.

The next day they eat	l.	s.	d.
1 quarter 4 buſhels of peaſe - - -	2	5	0

EXPERIMENT XII.

The next day they eat,	l.	s.	d.
1 quarter 4 buſhels of peaſe - - -	2	5	0
1 buſhel of buck-wheat	0	2	3
	2	7	3

EXPERIMENT XIII.

The next eighteen days they eat,	l.	s.	d.
24 quarters 1 buſhel of peaſe-meal - -	39	0	0
6 quarters of barley-meal - - -	7	4	0
Carry over	46	4	0

	l.	*s.*	*d.*
Brought over	46	4	0
1 quarter 1 buſhel buck-wheat flour - -	1	2	6
7 quarters 4 buſhels of pollard - - -	2	5	0
1 quarter of bran - - -	0	5	4
2 quarters 1 buſhel is 2 *l.* 15 *s.* per day.			
	49	16	10

The difference of two quarters and three and a half, in experiment IX, is remarkable, and ſeems to prove, that the hogs eat by weight and value, and not by meaſure: the quantities are very different, but the prices do not vary equally. N° 10, 11, 12, are *whole grain*, at forty-five pounds per day. *This* is all ground, and they eat ten pounds a day more; from which I conclude that the meal fattens much the beſt.

EXPERIMENT XIV.

The next day they eat,	*l.*	*s.*	*d.*
1 quarter 4 buſhels of peaſe-meal - -	2	6	6

EXPERIMENT XV.

The next day they eat,	*l.*	*s.*	*d.*
1 quarter 5 buſhels of peaſe-meal - -	2	10	4

EXPERIMENT XVI.

The next day they eat,	*l.*	*s.*	*d.*
1 quarter 7 buſhels of peaſe-meal. - -	2	18	0

EXPERIMENT XVII.

The next three days they eat	*l.*	*s.*	*d.*
5 quarters 2 buſhels of peaſe-meal - -	8	2	9

1 quarter 4 buſhels is 2 *l.* 14 *s.* 3 *d.* per day.

EXPERIMENT XVIII.

The next day they eat,	*l.*	*s.*	*d.*
1 quarter 4 buſhels of peaſe-meal - -	2	8	0

From all theſe trials, it appears that the meal is better than the whole grain.

EXPERIMENT XIX.

In January, 1768, I confined three hogs to different ſtyes, and fed them thus,

N° 1. with peaſe.
2. —— beans.
3. —— barley.

to ſee which pork was beſt and firmeſt. They were in every reſpect as equal as poſſible.

Nº 3. The whiteſt fat, and firm, and well-taſted meat.

1. The next in whiteneſs, and equally firm.
2. Very dark and ill-taſted, but firm.

OBSERVATIONS.

It appears from theſe experiments, that pollard alone (at the preceding prices) is a cheaper food than peaſe alone.

That boiled carrots is much the moſt profitable food that has been tried.

That buck-wheat is a more profitable food than peaſe.

That ſeveral kinds of food mixed, is better than being given alone.

That the meal of any one, or of various kinds of grain, is better and more profitable than the whole grain, mixed or alone.

That peaſe and barley are a much ſweeter food than beans.

The above experiments are humbly ſubmitted to the Society, not as perfect, but rather as a mark of the Author's thor's wiſhes to be uſeful. He ſhall not be diſpleaſed to find that others have been more accurate and attentive than himſelf.

ARTHUR YOUNG.

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IN addition to theſe experiments, I ſhall add a few that were not inſerted in the preceding memoir.

I.

In January, 1766, twenty pigs, that had been weaned ſix weeks, were draughted into four parcels, and kept for three weeks upon the following articles of food:

N° 1. Boiled carrots.
2. —— parſnips.
3. —— red beets.
4. —— potatoes.

They were then viewed, and the reſult;

N° 1. The beſt.
2. The next beſt.
3. The next; very near equal to N° 2.
4. The worſt, but very good.

The difference between them but little.

Carrots, in this trial, appear to be ſuperior to the other articles——but not ſo much as to prove deciſive.

II.

In February, 1766, drew ſix lots of pigs, four in each—the equality very exact; and, confining them to ſeparate ſties, fed them in the following manner three weeks:

N° 1. Raw carrots.
2. —— parſnips.
3. —— red beets.

N° 4. Raw potatoes.
5. —— Jeruſalem artichokes.
6. —— Turnips.

At the end of that time viewed them;

N° 1. The beſt; in good order.
2 } Next; equal: theſe alſo
3 } in good order.
4 and 5. The next; equal.
6. Three dead; and the other dying.

Carrots, parſnips, and beets are excellent food; potatoes and artichokes, the ſame, though in a ſomewhat inferior degree: turnips wretched.

III.

In January, 1767, drew three lots of weaned pigs, and fed them a fortnight as follows:

N° 1. With boiled carrots.
2. ———— parſnips.
3. ———— beets.

Viewed them at the end of that time; the reſult,

N° 2. The beſt.
1. The next.
3. The laſt.

But all in good order. Parſnips, being ſuperior in this trial to carrots, contradicts, ſo far, the reſult of the preceding experiments; but a few trials muſt never be conſidered as deciſive. In all agricultural ones, the general averages are the points alone which carry conviction.

IV.

The 6th of January, 1767, confined ſix pigs, two months old, to a ſtie, and fed them for ſix weeks with nothing but boiled Jeruſalem artichokes, and the common waſh that is given to lean hogs, as a trial to diſcover how far that root may be depended on for feeding ſuch pigs. The reſult was favourable; at the end of the time they were viewed, and found to be in good order;—not ſo well looking, as I have often had ſuch pigs kept on other meat—but well enough to ſhew that this food is a matter of much importance.

FINIS.